

REMARKS/ARGUMENTSProsecution Status

Claims 1-39 are pending in the present application. The Application was filed January 24, 2002 claiming priority to a provisional application filed October 29, 2001.

In a first Office Action of April 21, 2005, claims 10, 15, 18, 23, 27, and 32 were objected to for informalities. Claims 1, 6-8, and 34 were rejected under 35 USC § 102(e) as anticipated by U.S. Patent No. 6,341,140 to Lee et al. ("Lee"). Claims 2-4, 9-23, and 35 were rejected under 35 USC § 103 as unpatentable over Lee in view of U.S. Patent No. 6,477,162 to Bayley et al. ("Bayley"). Claims 25-26, 28-31, 33, and 36 were allowed. Claims 5, 24, and 37-39 were objected to as being dependent upon a rejected base claim, but allowable if rewritten in independent form. Applicants traverse the rejections as follows.

Objections for Informalities

Claims 10, 15, 18, 23, 27, and 32 have been amended to overcome the objections for informalities.

Amendment to the Specification and Figures

Applicants herein amend the Specification, paragraph [0075], line 3, to refer to step "518" instead of step "522" to correct an inadvertent duplicate use of the reference number "522". Fig. 5 is similarly corrected; the uppermost box labeled "522" in Fig. 5 is corrected to read "518". These amendments are merely to correct a typographical error.

Rejections under 35 USC § 102(e)

Claims 1, 6-8, and 34 were rejected under 35 USC § 102(e) as anticipated by U.S. Patent No. 6,341,140 to Lee et al. ("Lee"). The rejections are respectfully traversed.

Lee describes a code synchronization apparatus for use in a multi-carrier spread spectrum system, which uses multiple carrier frequencies. Lee does not describe the elements of claims 1, 7, 8, and 34. In particular Lee does not describe an apparatus or method for "analyzing the correlation function and estimating, responsive thereto, one or more parameter(s) relating to

the signal;” or “estimating, responsive to the first correlation function, one or more parameter(s) relating to the first signal,” anywhere. No correlation function is ever analyzed by Lee, and no signal parameters are estimated from such a function.

Lee Fig. 3, elements 36 and 37, cited by the Examiner do not describe these claim elements. Elements 36 are each “two square apparatus” and element 37 shows the summation of the outputs from the two “two square apparatuses.”

Then, the two square apparatus 36-i1 and 36-i2 read once the outputs of the two integral and dump apparatus 35-i1 and 35-i2 at the integral time specified by the system controller 27 in Fig. 2 and then calculate the square of the read value to output the result. Thereafter, the outputs of the two square apparatus 36-i1 and 36-i2 are added at the combiners 37-i, thus obtaining the magnitude of the correlation relationship between the final input signal and the output of the basic PN code generating apparatus 25 in Fig. 2.

Lee, col. 5, lines 11-20 (emphasis added). Afterwards, there is nothing done with this summation other than to send it to the test processor 26, which “determines the phase of the PN code to be inputted to each of the non-coherent correlators 24-1 to 24-m.” Lee, col. 3, lines 58-60. Lee performs no analysis of any correlation function and does not estimate a parameter relating to the input signal.

Independent claims 1, 7, 8, and 34 are allowable at least for the reason that the prior art fails to describe an estimation of one or more parameter(s) relating to the signal from a correlation function as claimed. Dependent claim 6 which depends from claim 1 is similarly allowable at least because it contains the elements of claim 1. Claim 6 may include an independent basis for patentability, but it is unnecessary for Applicants to present those reasons at this time in light of the allowability of the base claims. Applicants respectfully request that the rejections to these claims be reconsidered and withdrawn.

Rejections under 35 USC § 103

Claims 2-4, 9-23, and 35 were rejected under 35 USC § 103 as unpatentable over Lee in view of U.S. Patent No. 6,477,162 to Bayley et al. (“Bayley”). The rejections are respectfully traversed.

In order to establish a prima facie case of obviousness, the prior art references must teach or suggest all claim limitations. There must be some suggestion or motivation to modify the reference or combine the reference teachings. Also, there must be a reasonable expectation of success in the combination or modification. Applicant respectfully believes the references, either alone or in combination, fail to teach or suggest all claim limitations, and there is no motivation to modify the references in a manner that provides for the missing claimed features.

Claims 2-4 depend directly or indirectly from claim 1. Claim 1 is allowable because the prior art, Lee, fails to teach all of the claim elements as set forth above. Bayley determines integration intervals based on signal strength. Bayley does not describe, teach or suggest “analyzing the correlation function and estimating, responsive thereto, one or more parameter(s) relating to the signal;” or “estimating, responsive to the first correlation function, one or more parameter(s) relating to the first signal,” anywhere. No correlation function is ever analyzed by Bayley, and no signal parameters are estimated from such a function. Bayley cannot be relied upon to describe the elements lacking in Lee. Neither Lee nor Bayley, alone or in combination, teach or even suggest that claimed by Applicants. Dependent claims 2-4, which depend directly or indirectly from claim 1, are similarly allowable at least because they contain the elements of claim 1. Claims 2-4 may include an independent basis for patentability, but it is unnecessary for Applicants to present those reasons at this time in light of the allowability of the base claim.

Claims 9-15 depend directly or indirectly from claim 8. Claim 8 is allowable because the prior art, Lee, fails to teach all of the claim elements as set forth above. Bayley cannot be relied upon to describe the elements lacking in Lee at least for the reasons set forth above with regard to claims 2-4. Dependent claims 9-15, which depend directly or indirectly from claim 8, are similarly allowable at least because they contain the elements of claim 8. Claims 9-15 may include an independent basis for patentability, but it is unnecessary for Applicants to present those reasons at this time in light of the allowability of the base claim.

Regarding claims 16-23, independent claim 16 is similarly allowable because Lee and Bayley fail to teach or suggest the claim elements, again, for the reasons set forth above. Neither Lee nor Bayley, alone or in combination, teach or suggest “attempting to estimate, responsive to the first correlation function, one or more parameter(s) relating to the signal.” Dependent claims 17-23, which depend directly or indirectly from claim 16, are similarly allowable at least because they contain the elements of claim 16. Claims 17-23 may include an independent basis for patentability, but it is unnecessary for Applicants to present those reasons at this time in light of the allowability of the base claim.

Claim 35 is similarly allowable for the reasons set forth above. Neither Lee nor Bayley, alone or in combination, teach or suggest “attempting to estimate, responsive to the first correlation function, one or more parameter(s) relating to the signal.”

Claims 2-4, 9-23, and 35 are allowable because the prior art fails to teach or suggest that which is claimed. Applicants respectfully request that the rejections to these claims be reconsidered and withdrawn.

Claims 5, 24, and 37-39

Claims 5, 24, and 37-39 were objected to as being dependent upon a rejected base claim, but allowable if rewritten in independent form. Applicant believes that the claims are in condition for allowance as depending from an allowable base claim for the reasons set forth above. Applicants appreciate the Examiner's indication of allowance of these claims if rewritten as indicated, however, decline to amend given the above remarks and wish to preserve this option for the future.

CONCLUSION

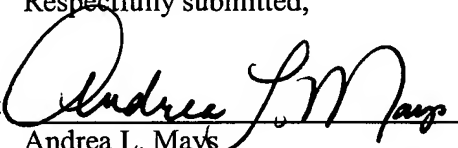
Applicants respectfully request that the Examiner reconsider the outstanding rejections and that these rejections be withdrawn. It is believed that a complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite

prosecution of the application, the Examiner is invited to telephone the undersigned at the number provided.

Applicants therefore respectfully request that a timely Notice of Allowance be issued in this case.

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